

Chapter 500: STORMWATER MANAGEMENT

SUMMARY: This chapter describes stormwater quantity and quality standards for activities licensed under the Stormwater Management Law and the Site Location of Development Law. It also describes license by rule standards for stormwater infiltration (Appendix D) adopted pursuant to the Waste Discharge Law, and basic performance standards (Appendices A - C) adopted pursuant to all three laws. 12/30/03

Text in italics contains drafting notes, which will be removed at a later time.

- 1. Applicability.** 12/30/03 Land use activities in a watershed cause changes in stormwater flows. Pollutants are carried in the stormwater down to a waterbody or wetland. Pollutants such as nutrients and metals are carried on fine particles from throughout a watershed. Activities are required to meet appropriate standards to prevent and control the release of pollutants, and reduce impacts associated with increases and changes in flow.

This chapter applies to (A) a project that requires a stormwater permit pursuant to 38 M.R.S.A. § 420-D, ~~and~~ (B) a development that may substantially affect the environment and requires a site location of development (Site Law) permit pursuant to 38 M.R.S.A. §§ 481 - 490 and (C) certain projects that may be eligible for license by rule for the infiltration of stormwater pursuant to 38 M.R.S.A. § 413.

- 2. Definitions.** 12/30/03 As used in this chapter and Chapter 502, unless the context otherwise indicates, the following terms have the following meanings.

The terms "freshwater wetlands", "coastal wetlands", "great pond", and "river, stream or brook" have the same meaning as defined in the Natural Resources Protection Act at 38 M.R.S.A. § 480-B. These resources are referred to as "wetlands and waterbodies".

"Watersheds of waterbodies most at risk from new development" (waterbodies most at risk) and "sensitive or threatened regions or watersheds" are listed in Chapter 502.

A. Detention basin. A basin designed and constructed to provide temporary storage of runoff in order to control outflow from the site and peak flow in receiving waters, and to provide gravity settling of pollutants.

B. Developed area. "Disturbed area" excluding areas that are returned to a condition with the same drainage patterns and vegetative cover type that existed prior to the disturbance. Both planting conducted to restore the previous cover type and restoration of any altered drainage patterns must occur within one calendar year of disturbance. "Same cover type" may include hydrologically improved cover type. For example, an area that was previously pasture may be replanted as forest.

This definition incorporates some elements of the existing "disturbed area" definition.

CB. Direct watershed of a waterbody. The land area that drains, via overland flow, natural or man-made drainage systems, or waterbodies or wetlands, to a given waterbody without first passing through an upstream waterbody classified as GPA.

DC. Disturbed area. All land areas that are stripped, graded, or grubbed at any time during the site preparation for, or construction of, a project ~~unless the areas are returned to a condition with the same drainage patterns and vegetative cover type that existed prior to the disturbance. Both planting conducted to restore the previous cover type and restoration of any altered drainage patterns must occur within one year of disturbance.~~

~~"Same cover type" may include hydrologically improved cover type. For example, an area that was previously pasture may be replanted as forest.~~

"Disturbed area" does not include maintenance ~~or redevelopment~~ of an impervious area within the footprint of that impervious area, but does include new impervious areas. A natural ~~or man-made~~ waterbody is not considered a disturbed area.

E. Drainageway. A channel or course within which surface discharge of water may occur. Drainageways include but are not limited to rivers, streams and brooks (whether intermittent or perennial), swales, ditches, pipes, culverts, and wetlands with localized discharge of water.

This definition was created from existing text removed from the quantity standards section.

F D. Erosion and sedimentation control best management practices (erosion BMPs). Methods, techniques, designs, practices, and other means to control erosion and sedimentation, as approved or required by the department.

NOTE: For guidance, see "Maine Erosion and Sedimentation Control BMPs Control Handbook for Construction — Best Management Practices", Cumberland County Soil and Water Conservation District and Maine Department of Environmental Protection (2003 ~~1994~~).

G E. Impervious area. The total area of a parcel that consists of buildings and associated constructed facilities or areas that will be covered with a low-permeability material, such as asphalt or concrete, and areas such as gravel roads and unpaved parking areas that will be compacted through design or use to reduce their permeability. Common impervious areas include, but are not limited to, rooftops, walkways, patios, driveways, parking lots or storage areas, concrete or asphalt paving, gravel roads, packed earthen materials, and macadam or other surfaces which similarly impede the natural infiltration of stormwater. A natural or man-made waterbody is not considered an impervious area, but is treated as an immediate runoff surface in curve number calculations.

H F. Infiltration. Any process specifically used to meet all or part of the stormwater quantity and quality standards of this rule by actively directing some or all or part of the stormwater into the soil. Infiltration is the process by which runoff percolates through the unsaturated overburden and

fractured bedrock to the water table. For the purposes of this rule, infiltration does not include: the incidental wetting of soil in ditches, drains, or other means of conveying stormwater.

- (1) Incidental wetting of soil in ditches, detention basins or the equivalent;
- (2) Wetting of underdrained basins, dry swales, or similar filtration systems; and
- (3) Wetting of buffers meeting department requirements for use as stormwater quality treatment or stormwater quantity control.

Discharge of runoff to areas of the site where the water will collect and percolate is considered infiltration if the volume, rate, or quality of the discharge exceeds the runoff capacity of the for quality or quantity treatment buffers as determined by the department. Underground swales, underdrained ponds, and similar practices that discharge to surface waters or to buffer strips meeting department requirements for quality or quantity treatment buffers are not considered infiltration systems, although these may be used to treat runoff prior to discharge to an infiltration area.

I. G. Lake or pond. (1) A great pond; or (2) a lake or pond of any size used as a public water supply.

J. Major river segment. The rivers or portions of rivers identified as follows: Saco River; Androscoggin River; Kennebec River; West Branch Penobscot River below Elbow Lake; East Branch Penobscot River below Wassataquiok Stream; Piscataquis River below Dover-Foxcroft; St. Croix River below Grand Lake; Aroostook River below Ashland; and St. John River below the Allagash River.

K. Parcel. "Parcel" is defined the same as "parcel of land" in 06-096 CMR 371(1)(L).

L. H. Peak flow. The greatest rate of flow in a natural or man-made drainageway, measured as volume per unit of time, resulting from a storm of specified frequency and duration.

M. Person. An individual, firm, corporation, municipality, quasi-municipal corporation, state agency, federal agency or other legal entity. For purposes of an activity requiring review pursuant to the Site Law or Stormwater Management Law, "person" is further defined at 06-096 CMR 321(1)(M).

N. Practicable. Available and feasible considering cost, existing technology and logistics based on the overall purpose of the project.

O. Protected natural resource. As defined at 38 M.R.S.A. § 480-B.

I. Public water supply. ~~Any source of water supplying a system that has at least 15 service connections or serves at least 25 individuals daily at least 60 days out of the year and falls within one of the following categories:~~

- (1) ~~A "community water supply" that serves at least 15 service connections used by year round residents or regularly serves at least 25 year round residents; or~~
- (2) ~~A "non-community, non-transient water supply" that serves at least 25 of the same persons for 6 months or more per year.~~

This definition was originally used to identify surface water bodies that were classified as most-at-risk because of the presence of an intake for a public water supply, as defined for the purposes of the rule. It is not yet clear whether the term will be needed in Ch. 502, since the "sensitive/threatened" list is not established, nor possible overlap with surface public water supply intakes. The term public water supply, as now used in Appendix D, is used to define certain wells for the purpose of establishing appropriate standards for infiltration systems in the contributing areas of those wells.

P. J. Stormwater. The part of precipitation, including runoff from rain or melting ice and snow, that flows across the surface as sheet flow, shallow concentrated flow, or in natural or man-made drainageways.

Q. K. Stormwater best management practices (stormwater BMPs). Methods, techniques, designs, practices, and other means to control the quality and quantity of stormwater, as approved or required by the department.

NOTE: For guidance, see "Stormwater Management for Maine: Best Management Practices", Maine Department of Environmental Protection (1995).

R. L. Subwatersheds. For purposes of the stormwater quantity standards, areas of the site with unique times of concentration. ~~This definition reflects the stormwater quantity models in general use in 1996; other areas may qualify as subwatersheds or other definitions may be applicable depending upon the characteristics of the site or the model used. The department will review all alternative definitions on a case-by-case basis.~~

NOTE: This definition reflects the stormwater quantity models in general use in 2003. Other areas may qualify as subwatersheds or other definitions may be applicable depending upon the characteristics of the site or the model used. The department will review all alternative definitions on a case-by-case basis.

For purposes of the stormwater quality standards, a "subwatershed" is an area that drains to a specific stream or lake.

S. M. Two (ten, twenty-five)-year, 24-hour storm. A precipitation event with a 50% (for two-year), 10% (for ten-year), or 4% (for 25-year) probability of being equaled or exceeded during any twenty-four hour period during any given year.

T. N. Watershed. The land area that drains, via overland flow, natural or man-made drainage systems, waterbodies, or wetlands to a given waterbody or wetland.

~~O. Wellhead protection area.~~ *[Deleted -- no longer used].*

U. Wetlands. Coastal or freshwater wetlands as defined in the Natural Resources Protection Act, 38 M.R.S.A. § 480-B.

2-A. What standards apply to my project? *12/30/03* This section is intended to provide a general overview of the categories of standards that may apply to a project. Detailed descriptions of standards and their applicability are found in other sections and the appendices, and this section is not intended to limit the application of those sections.

The addition of this overview section was recommended by licensing staff.

The term "project" is used to refer to all or a part of an activity, project, or development subject to review under the Site Location of Development Law or Stormwater Management Law. The use of this term is not intended to limit the applicability of those laws.

A. Basic standards. All projects including one-acre or more of disturbed area must meet basic standards addressing erosion and sedimentation control, inspection and maintenance, and housekeeping. See Section 2-B and Appendices A, B, and C for a description of these standards.

B. Quantity standards. A project including one or more acres of impervious area or 5 acres or more of developed area must meet the quantity standards in Section 3. Section 3(A) describes or references exceptions related to discharge to the ocean, great pond, or major river segment; and insignificant increases.

C. Quality standards (in addition to "Basic Standards). A project including 20,000 sq. ft. or more of impervious area in the direct watershed of a waterbody most at risk, one acre or more of impervious area, or 5 acres or more of developed area, must meet the quality standards in Section 4 unless the project is eligible for permit by rule (see Section 7) or a lesser standard (see Section 4 (C)). See Section 5 for allowable off-sets.

Summary Tables by Project Size, Type of waterbody, and Sensitivity of Resource (see Section 4 for details) -- Phosphorus, Low, Medium, High and Cold Water Fishery Standards

These tables do not list "basic standards" (Section 2-B), except where basic standards are the only quality standards generally required. All projects including one-acre or more of disturbed area must meet basic standards. See Section 2-B.

Additional standards may apply to some projects on a case-by-case basis. See Section 4(D).

LAKES: Required Stormwater Quality Control by Project Size and Location			
	<u>20K sq. ft. to three acres of impervious area and less than five acres</u>	<u>Three acres or more of impervious area or five acres or more of</u>	

	<u>of developed area</u>	<u>developed area</u>	
<u>Most at Risk and Severely Blooming</u>	<u>Phosphorus standard</u>	<u>Phosphorus standard</u>	
<u>Most at Risk and Not Severely Blooming</u>	<u>Phosphorus standard or High standard</u>	<u>Phosphorus standard</u>	
	<u>20K sq. ft to three acres of impervious area and less than five acres of developed area</u>	<u>Three acres or more of impervious area</u>	<u>Five acres or more of developed area and less than three acres of impervious area</u>
<u>Sensitive or Threatened</u>	<u>Basic (Sec. 2-B) only</u>	<u>Phosphorus standard or Medium standard</u>	<u>Phosphorus standard</u>

<u>RIVER, STREAM OR BROOK: Required Stormwater Quality Control by Project Size and Location</u>			
	<u>20,000 square feet to 1 acre impervious</u>	<u>1 - 3 acres impervious; or 5 – 20 acres developed area</u>	<u>= 3 acres impervious; or = 20 acres developed area</u>
<u>Most at Risk and Impaired</u>	<u>Medium</u>	<u>High OR Medium + Comp Fee* or Credit</u>	<u>High + Comp Fee* or Credit</u>
<u>Most at Risk and Not Impaired</u>	<u>Low</u>	<u>Medium OR Low + Comp Fee* or Elimination Credit</u>	<u>High OR Medium + Comp Fee* or Elimination Credit</u>
<u>Sensitive or Threatened</u>	<u>Basic (Sec. 2-B) only</u>	<u>Low</u>	<u>Medium except High if includes = 10 acres impervious.</u>
<u>All Other</u>	<u>Basic (Sec. 2-B) only</u>	<u>Basic (Sec. 2-B) only</u>	<u>Medium</u>
<u>IN ADDITION, if a coldwater fishery</u>	<u>BMPs must be designed to avoid an unreasonable impact on the the fishery.</u>		

* Where compensation fee use is appropriate, and what requirements apply, are still being discussed.

** For most at risk watersheds, only credits that eliminate existing impervious area may be used.

<u>WETLANDS: Required Stormwater Quality Control</u>	
<u>Coastal wetlands -- most at risk (direct watershed)</u>	<u>Medium</u>
<u>Coastal wetlands -- other</u>	<u>Basic (Sec. 2-B)</u>
<u>Freshwater wetlands</u>	<u>Same standard as the project is required to meet based on the waterbody or waterbodies to which</u>

	the wetland drains, unless otherwise approved by the department. <i>Note: this is consistent with the approach of the current rule, which does not allow wetlands to be used for treatment, unless otherwise approved by the department.</i>
<u>Freshwater and coastal wetlands</u>	<u>For Site Law developments -- additional standards may apply , on a case-by-case basis, if necessary to avoid an unreasonable impact on the wetland, as determined by the department.</u>

D. Infiltration. A project proposing infiltration of stormwater may require a permit pursuant to the Waste Discharge Law. See Appendix D for license by rule standards. License by rule is available in lieu of an individual waste discharge permit where the standards in this appendix are met.

E. When is permit by rule available? For the full text of permit by rule requirements, see Section 7. Permit by rule may be available if the project includes:

- (1) Less than 20,000 sq. ft. of impervious area located in a most at risk watershed;
- (2) Less than one acre of impervious area located elsewhere; and
- (3) Less than 5 acres of developed area.

F. When more than one standard applies. More than one standard may apply to a project. In this case, the stricter standard is applied, as determined by the department. For example, a project may be located in a stream watershed, and the stream may drain to a lake. The standards for the particular stream and lake are compared, and the stricter standard is applied.

G. When the stormwater drains to a wetland. Quality standards for the waterbody must be met before the stormwater enters a wetland, unless otherwise approved by the department.

2-B. Basic standards--all projects. 12/30/03 All projects must meet the basic quality standards specified for "all projects" in Appendices (A), (B), and (C) of this chapter. These standards address erosion and sedimentation control, inspection and maintenance, and housekeeping.

Basic standards are generally the only quality standards required if the project includes:

- (1) Less than 20,000 sq. ft. of impervious area located in a most at risk watershed;
- (2) Less than one acre of impervious area located elsewhere; and
- (3) Less than 5 acres of developed area.

NOTE: if basic standards are the only standards required for the project, and the project includes less than one acre of impervious area, permit by rule (Section 7) may be available.

2-C. Threatened or endangered species. Additional or more stringent standards than otherwise required by this chapter may apply on a case-by-case basis if the department determines that such

standards are necessary to avoid degrading the habitat of a threatened or endangered species or violate protection guidelines.

Note: Title 12 M.R.S.A. § 7755-A prohibits state agencies from issuing a permit that will significantly alter the habitat of any species designated as threatened or endangered species or violate protection guidelines.

The current rule only addresses threatened or endangered species in the context of freshwater wetlands, and then prescribes a particular standard, which may be too strict or not strict enough, depending upon the particular situation. This new standard address all resource types, and is intended to be consistent with Title 12.

- 3. Stormwater quantity standards.** *12/30/03* This section applies to a project that includes one acre or more of impervious area or 5 acres or more of developed area unless otherwise indicated below. The applicant for a stormwater permit must meet the stormwater quantity standards described in this section, except as provided below, if a project includes 20,000 sq. ft. or more of impervious area or five acres or more of disturbed area in the direct watershed of a waterbody most at risk from new development (waterbody most at risk), or one acre or more of impervious area or five acres or more of disturbed area elsewhere. The applicant for a site location of development permit must meet the standards described in this section.

A. Peak flow from the site and peak flow of the receiving waters. *[deleted and replaced]*

A. Channel protection standard. The stormwater management system must include measures that will mitigate for the increased frequency and duration of channel erosive flows due to runoff from smaller storms. This must be achieved using one or more of the following methods to control runoff from each of the project's subwatersheds having developed areas as part of the project. One system may be used to control runoff from multiple subwatersheds.

- (1) Channel protection -- detention. A stormwater management system must detain a subwatershed's stormwater runoff from the one-year, 24-hour storm for at least 12 hours prior to discharge from the system. The detention time must be calculated using the plug-flow method. For this method, determining twelve-hour detention time requires the average of the storage times in the pond for equi-volume plugs of runoff comprising the pond's inflow hydrograph to be at least 12 hours on a first-plug-in-first-plug-out basis. In situations where the system outflow required to achieve 12-hour extended detention is 0.05 cfs or less per acre of subwatershed, the department will allow a reduction in the 12-hour detention to prevent the outflow rate from falling below this value.
- (2) Channel protection -- filter. A stormwater management system must detain a runoff volume equal to 1.0 inches times the subwatershed's impervious area plus 0.4 inches times the subwatershed's non-impervious area and discharge it solely through an underdrained filter.
- (3) Channel protection -- infiltration. A stormwater management system must retain a runoff volume equal to 1.0 inches times the subwatershed's impervious area plus 0.4 inches times the subwatershed's non-impervious area and infiltrate this volume into the ground.

(4) Channel protection -- buffer. Buffer standards for channel protection are still under development.

The department may waive the stream protection standard in certain situations. See Section 3(C).

B. Flooding standard. This standard only applies if the project includes three acres or more of impervious area or 20 acres or more of developed area. If the project will include 3 acres or more of impervious area or 20 acres or more of developed area, then the project's stormwater management system must detain, retain, or result in the infiltration of stormwater from 24-hour storms of the 2-year, 10-year, and 25-year frequencies such that the peak flows of stormwater from the project site do not exceed the peak flows of stormwater prior to undertaking the project. In those cases where a project must also meet the channel protection standard, the department will consider that stormwater systems designed to meet the channel protection standard also meet the flooding standard for a 24-hour storm with a 2-year frequency.

The department may waive the flooding standard in certain situations. See Section 3(C).

C. Waiver of flooding and/or stream protection standard. The department may waive one or both of the standards specified in Sections 3(A) and 3(B) as provided below.

(1) Discharge to the ocean, great pond, or major-river segment. If the applicant demonstrates that the project or development conveys stormwater exclusively in sheet flow, in a manmade open channel, or in a piped system directly into the ocean, great pond, or major-river segment, then the project does not have to meet the flooding and channel protection standards. Prior to submitting the waiver request to the department, the applicant must secure drainage easements from any downstream property owners across whose property the runoff must flow to reach the ocean, great pond, or river. The applicant must also demonstrate that any piped or open-channel system in which the runoff will flow has adequate capacity and acceptable stability for the project's runoff plus any off-site runoff also passing through the system.

Need to clarify how determine width of drainage easement.

(2) Insignificant increases. The department may waive the flooding standard to allow insignificant increases in peak flow rates from a project site. As part of waiver request, the applicant must demonstrate that insignificant increases in peak flow rates cannot be avoided by reasonable changes in project layout, density, and stormwater management design. The applicant must also demonstrate that the proposed increases will not unreasonably increase the extent, frequency, or duration of flooding at downstream flow controls and conveyance structures or have an unreasonable adverse effect on protected natural resources. In making its determination to allow insignificant increases in peak flow rates, the department shall consider cumulative impacts. If additional information is required to make a determination concerning increased flow, the department may only consider an increase after the applicant agrees, pursuant to 38 M.R.S.A. § 344-B(3)(B), that the review period may be extended as determined to be necessary by the department.

D. **Authorization for discharges to public storm sewer systems.** If runoff from a project site will flow to a publicly-owned storm sewer system, then the applicant must obtain authorization from the system's owner to discharge into the system. At its discretion, the department may require the applicant to demonstrate that the system has adequate capacity for any increases in peak flow rates and volumes to the system.

EB **Grading or other construction activity.** Grading or other construction activity on the site may not impede or otherwise alter natural or man-made drainageways so as to:

- (1) Have an unreasonable adverse impact on a protected natural resource;
- (2) Flood an area of the parcel not specifically planned and designated for such flooding; or
- (3) Flood an area of any other parcel unless an easement is obtained.

~~A "drainageway" is a channel or course within which surface discharge of water may occur. Drainageways include but are not limited to rivers, streams and brooks (whether intermittent or perennial), swales, ditches, pipes, culverts, and wetlands with localized discharge of water.~~

FC. **Channel limits and runoff areas.** The design of piped or open channel systems must be based on a 10-year, 24-hour storm without overloading or flooding beyond channel limits, except when the piped system is overloaded to provide detention or retention of the stormwater. In addition, the areas expected to be flooded by runoff of a 10-year or 25-year, 24-hour storm must be designated in the application and approved by the department, and no buildings or other similar facilities may be planned within such areas. This does not preclude the use of parking areas, recreation areas, or similar areas from use for detention of storms greater than the 10-year, 24-hour storm. Primary access roads to the project and public roads may not be flooded during or as a result of a 25-year, 24-hour storm ~~or, if required by the municipality, a 100-year, 24-hour storm.~~

GD. **Detention basins** *Deleted -- standards on this subject are now addressed in Appendix E.*

E. **Maintenance.** *Deleted -- this subject is now addressed in Appendix B.*

HF. **Easements and covenants**

- (1) Areas not owned or controlled by the permittee. If a project changes the flow type (example- sheet to shallow concentrated), changes the flow channel, increases the stormwater discharge, or causes flooding in areas not owned or controlled by the applicant, the applicant must secure easements. These easements must include all areas of flow or areas to be flooded during the 2-, 10-, and 25-year, 24-hour storms on properties not owned or controlled by the permittee, must be secured from all affected property owners, and must be recorded at the appropriate county registry of deeds. Drainage easements must extend up to, but need not include, the channel of any river, stream or brook accepting flow from the project. Areas to

be flooded include those to be flooded due to overloading of underground storm sewers and equivalent utilities.

Need to clarify how determine width of easement when using stream protection standard.

- (a) Suitable land-use restrictions must be included in the easements to prevent any activity that might affect drainage across the area.
 - (b) Drainage easements over private property must conform with the center line of watercourses, natural or manmade, and must have a minimum width of 30 feet, or 10 feet on each side of the channel required to accommodate the flow from a 25-year, 24-hour storm, whichever is greater. Drainage easements for piped drainageways must have a minimum width of 30 feet, or 10 feet on each side of the outer edge of the pipe, whichever is greater.
 - (c) The increase in flow may not cause erosion of soil or sediment or otherwise have an adverse impact on existing uses of the affected property.
- (2) Areas transferred. When the permittee transfers land that contains areas of flow or areas to be flooded during the 2-, 10-, or 25-year, 24-hour storm, restrictive covenants protecting these areas must be included in any deeds or leases and recorded at the appropriate county registry of deeds. Also, in all conveyances of such areas and areas containing parts of the stormwater management system, the permittee shall include deed restrictions making the conveyance subject to all applicable terms and conditions of the permit. These terms and conditions must be incorporated by specific and prominent reference to the permit in the deed. All conveyances must include in the restrictions the requirement that any subsequent conveyance must specifically include the same restrictions unless their removal or modification is approved by the department. These restrictions must be written so as to be enforceable by the department, and must reference the permit number.

For provisions on buffers, see Appendix F.

Approval of a transfer of the affected property is required pursuant to Section 9(A)(4), and may be accomplished by means of a permit by rule on a form provided by the department. ~~Such an application is deemed approved effective 14 calendar days after the department receives the notification form, unless the department approves or denies the application, or notifies the applicant that the application is ineligible for permit by rule, or requires additional information or further review, prior to that date. If the department does not otherwise notify the applicant within the 14 day period, the application is deemed approved by the department.~~ *This subject of the removed text is now addressed in Section 7 -- permit by rule.*

IG. Buffers. Buffers must be protected from alteration through a conservation easement to which the department is a party, deed restrictions, or similar measures. See Appendix F.

JH. Discharge to freshwater or coastal wetlands. Freshwater and coastal wetlands must receive stormwater in the same manner as before the project unless otherwise approved or required by the department. In general, new or increased stormwater discharges into wetlands must be put into sheet flow, using level spreaders, ~~if needed designed using the requirements in Appendix F~~. The department will consider alternate methods if those methods will not unreasonably adversely affect the wetland.

The discharge of runoff to a wetland may not increase the storage duration within the wetland more than 24 hours for runoff due to a 2-year storm, may not increase the storage depth within a wetland more than two inches for the runoff due to a 2-year storm, and may not degrade the habitat of a threatened or endangered species. Cumulative impacts due to runoff from other projects will be considered when applying this standard to any wetland. In some cases, increased discharge of stormwater to a wetland will require a permit under the Natural Resources Protection Act.

KI. Level spreaders for stormwater quantity control. The stormwater flow rate to each level spreader must be less than 0.25 cubic feet per second (0.25 cfs) per foot of length of level spreader to accommodate the flow from a 10-year, 24-hour storm. The maximum drainage area to a level spreader may not exceed 0.125 acre per foot length of level spreader. The minimum length of each level spreader must be 12 feet. The maximum length of each level spreader must be 25 feet, unless otherwise approved by the department.

~~LJ. Wellhead protection area (public water supply)~~ Groundwater protection (infiltration) standard. Any project proposing infiltration of stormwater ~~within the wellhead protection area of a public water supply~~ must provide adequate pre-treatment of stormwater prior to discharge of stormwater to the infiltration area, if pre-treatment is recommended as part of applicable stormwater best management practices or required by the department. The infiltration area must minimize discharge of soluble pollutants to groundwater, and must be maintained in order to assure that its capacity for infiltration and pollutant removal is unimpaired. The project must either meet the license by rule standards in Appendix D, or obtain an individual waste discharge license.

4. Stormwater quality standards (These quality standards are in addition to the basic standards of Section 2-B). 12/30/03

This section applies to a project that includes 20,000 sq. ft. of impervious area in the direct watershed of a waterbody most at risk, or one acre or more of impervious area, or 5 acres or more of developed area. The applicant for a stormwater permit must meet the stormwater quality standards described under Subsection (A) below if the project includes 20,000 sq. ft. or more of impervious area or five acres or more of disturbed area in the direct watershed of a waterbody most at risk from new development (waterbody most at risk), or one acre or more of impervious area or five acres or more of disturbed area in a sensitive or threatened region or watershed. The applicant for a site location of development permit must meet the standards described in Subsection (B) below. The applicant for a

~~stormwater permit or a site location of development permit must also meet the standards in Subsection (C) below if infiltration is proposed within the wellhead protection area of a public water supply.~~

Standards listed in the stormwater quantity section concerning maintenance, easements, and buffers, also apply to maintenance, easements, and buffers associated with stormwater quality controls. See Section 3(H) and (I) and Appendix B.

Stormwater best management practices appropriate for the site and type of activity must be used to meet the standards specified in this section. The standards must be met at the property line or before the runoff enters a waterbody, whichever point is first reached by the runoff, unless an off-set is allowed under Section 5. Wetlands may not be used to treat stormwater unless approved by the department.

NOTE: Discharge of other waters to a stormwater management system may be prohibited or require additional treatment pursuant to 38 M.R.S.A § 413. A project licensed under the stormwater law, and having more than 3 acres of impervious area, may be required to directly address dissolved or hazardous materials. A project having 3 acres or less of impervious area cannot be required to directly address dissolved or hazardous materials, other than phosphorus, nitrate, and suspended solids, unless infiltration is proposed. See 38 M.R.S.A. § 420-D(1).

A. Phosphorus, total suspended solids (TSS), and basic stabilization standards. Deleted

A. Description of standards. These standards are applied independently to the subwatersheds of each receiving water. If a project drains to more than one lake, subwatersheds within the project site must be delineated for every lake to which the project drains. If all or a portion of the project does not drain to a lake, but drains to more than one perennial river, stream or brook, the subwatersheds within the project site must be delineated for each.

(1) Phosphorus standard. *[Text of phosphorus standard has been moved, but is otherwise unchanged from existing chapter, except for removing "(1992)" from the note.]* The project must incorporate appropriate stormwater best management practices so that the project will not exceed the allowable per-acre phosphorus allocation for the lake.

An allowable per-acre phosphorus allocation for each lake most at risk will be determined by the department, based upon (i) current water quality, (ii) potential for internal recycling of phosphorus, (iii) potential as a cold-water fishery, (iv) volume and flushing rate, and (v) projected growth in the watershed, and will be used to determine project phosphorus allocations unless the applicant proposes an alternative per-acre phosphorus allocation that is approved by the department. If the project is a new road in a subdivision, only 50% of the parcel's allocation may be applied to the new road unless phosphorus export from both the new road and the new lots is being addressed, in which case the entire allocation for the parcel may be applied.

NOTE: For guidance in calculating per-acre phosphorus allocations and in determining if stormwater phosphorus export from a project meets or exceeds the parcel's allocation, see "Phosphorus Control in Lake Watersheds: A Technical Guide for Evaluating New Development", Maine Department of Environmental Protection.

(2) Low, medium, and high standards. The project must include measures that, in the judgment of the Department and based on best available information, can be expected to remove and retain the percentage of the typical annual Total Suspended Solids and Phosphorus loads from a typical urban source area, as provided in the table below.

Stormwater Treatment Level	Removal Level	
	TSS	Phosphorus
Low Standard	60% - 70%	30% - 40%
Medium Standard	70% - 80%	40% - 60%
High Standard	80% - 90%	60% - 70%

B. Which standard must be met. All projects must meet basic standards. See Section 2-B. What additional quality standards must be met, if any, depends upon the watershed where the project is located and the size of the project.

(1) Lakes

(i) Most at risk -- If a project is located in the direct watershed of a lake most at risk and includes 20,000 sq. ft. or more of impervious area or 5 acres or more of developed area, one of the following standards must be met.

a. If the lake is a severely blooming lake, the project must meet the phosphorus standard.

NOTE: "Severely blooming lakes" are a subgroup of "lakes most at risk" and are identified in Chapter 502.

b. If the lake is not a severely blooming lake and the project includes three acres or more of impervious area or five acres or more of developed area, then the project must meet the phosphorus standard.

If the lake is not a severely blooming lake and the project includes less than three acres of impervious area and less than five acres of developed area, then the project must meet either the the phosphorus standard or the high standard.

(ii) Sensitive or threatened (all other lake watersheds) -- If a project is located in the direct watershed of a lake other than a lake most at risk, and includes three acres or more of impervious area or five acres or more of developed area, one of the following requirements must be met, unless the department determines based upon lake sensitivity and the nature of the project that the requirements are not necessary to avoid an

unreasonable impact on the lake. In considering whether an unreasonable impact may occur, the department shall consider factors such as the type and size of the development, the sensitivity of the lake, and cumulative impacts.

- a. Three acres or more of impervious area -- If the project includes three acres or more of impervious area, the project must either meet the phosphorus standard or the medium standard.
- b. Less than three acres of impervious area and five acres or more of developed area -- If the project includes five acres or more of developed area, and less than three acres of impervious area, the project must meet the phosphorus standard.
- c. Less than three acres of impervious area and less than 5 acres of developed area. If the project includes less than 3 acres of impervious area and less than 5 acres of developed area, the project must meet the basic standards. See Section 2(B).

(2) Rivers, streams or brooks. A project located and of a size as indicated in the table below, must meet the standard indicated in the table below. For "Basic" standards, see Section 2-B.

<u>RIVER, STREAM OR BROOK: Required Stormwater Quality Control</u> <u>by Project Size and Location</u>			
	<u>20,000 square feet to 1 acre impervious</u>	<u>1 - 3 acres impervious; or 5 – 20 acres developed area</u>	<u>= 3 acres impervious; or = 20 acres developed area</u>
<u>Most at Risk and Impaired</u>	<u>Medium</u>	<u>High OR Medium + Comp Fee* or Credit</u>	<u>High + Comp Fee* or Credit</u>
<u>Most at Risk and Not Impaired</u>	<u>Low</u>	<u>Medium OR Low + Comp Fee* or Elimination Credit</u>	<u>High OR Medium + Comp Fee* or Elimination Credit</u>
<u>Sensitive or Threatened</u>	<u>Basic (Sec. 2-B) only</u>	<u>Low</u>	<u>Medium except High if includes = 10 acres impervious.</u>
<u>All Other</u>	<u>Basic (Sec. 2-B) only</u>	<u>Basic (Sec. 2-B) only</u>	<u>Medium</u>
<u>IN ADDITION, if a coldwater fishery</u>	<u>BMPs must be designed to avoid an unreasonable impact on the the fishery.</u>		

* Compensation Fees may only be used in watersheds where Stormwater Management Plans have been developed and are being locally administered and implemented.

** For most at risk watersheds, only credits that eliminate existing impervious area may be used.
Comp = Compensation fee or equivalent credit/mitigation

Pat's comment re inconsistency quant/qual -- staff still need to discuss.

(2) Coastal wetlands. A project located in the direct watershed of a coastal wetland most at risk must meet the medium standard. A project located in the direct watershed of any other coastal wetland must meet the Basic (Sec. 2-B) standards.

If the development or portion thereof requires approval under the Site Law, additional standards may apply , on a case-by-case basis, if necessary to avoid an unreasonable impact on the wetland, as determined by the department.

(3) Freshwater wetlands. A project located in the direct watershed of a waterbody must meet the applicable stormwater quality standards for the waterbody, before the stormwater flows through a freshwater wetland, unless otherwise approved by the department.

If the development or portion thereof requires approval under the Site Law, additional standards may apply , on a case-by-case basis, if necessary to avoid an unreasonable impact on the wetland, as determined by the department.

C. Lesser standard. If the applicant demonstrates that it is not technically feasible to meet the applicable standard through reasonable changes in project design or density, or appropriate off-site mitigation, and the department determines that an unreasonable risk to a lake, coastal wetland, or river, stream or brook will not result, the department may allow the applicant to meet a lesser standard approved by the department. The department may only consider a lesser standard if the applicant agrees, pursuant to 38 M.R.S.A. § 344-B(3)(B), that the review period may be extended as determined to be necessary by the department.

In making its determination concerning a lesser standard, the department considers factors such as the sensitivity of the affected resource, site characteristics, the amount and rate of development in the area, the availability and appropriateness of technology or other solutions, and the availability of mitigation.

D. Additional controls [See 38 M.R.S.A. 420-D(1) and existing Ch. 500(4)(B) second to last paragraph]. This subsection applies to Stormwater Management Law projects including more than 3 acres of impervious area and to Site Law developments of any size. The department may require additional controls if it determines they are necessary in order to avoid an unreasonable impact on any wetland or waterbody due to pollutants that are not adequately addressed by the standards described above. This is a case-by-case determination based upon factors such as the size, nature and intensity of the development, characteristics of the resource affected, topography and soils.

For example, stormwater from a metallic mineral mining or advanced exploration activity regulated under 06-096 CMR 200 may contain contaminants, such as very low pH, high acidity, and high concentrations of dissolved metals, for which stormwater quality BMPs for other commercial or industrial developments do not provide adequate treatment.

NOTE: For projects permitted under the Stormwater Management Law, and not requiring a Site Law permit, storm water quality standards for projects with 3 acres or less of impervious surface may address phosphorus, nitrates and suspended solids but may not directly address other dissolved or hazardous materials unless infiltration is proposed. 38 M.R.S.A. 420-D(1)(in part).

B. Site Law development standards . Deleted

EE. ~~Wellhead protection area (public water supply)~~ Groundwater protection standard.

Any project proposing infiltration of stormwater ~~within the wellhead protection area of a public water supply~~ must provide adequate pre-treatment of stormwater prior to discharge of stormwater to the infiltration area, if pre-treatment is recommended as part of applicable stormwater best management practices or required by the department. The infiltration area must minimize discharge of soluble pollutants to groundwater, and must be maintained in order to assure that its capacity for infiltration and pollutant removal is unimpaired. The project must either meet the license by rule standards in Appendix D, or obtain an individual waste discharge license.

- 5. Off-set.** *Section not yet updated. Expect to drop "80% TSS" off-set since that standard is no longer used. Replace with off-set similar to that proposed for streams.* The department may allow the applicant to off-set the inability of a project to meet certain stormwater quality standards described in Section 4(A) through the elimination or reduction of other sources if, as determined by the department, the stormwater quality standards cannot be met by reasonable redesign of the project or use of reasonably available stormwater best management practices. The project must still meet stormwater quantity standards.

Off-site mitigation applies to the elimination or reduction, but not treatment, of off-site impervious areas or sources of phosphorus or TSS. A source is considered to be eliminated if impervious area is removed, and the area revegetated and returned to a wooded condition. A source is considered to be reduced if the impervious area is removed, and the area revegetated and maintained as a lawn or other non-forested area. The source or sources must be eliminated or reduced to the degree necessary to off-set the impact of the TSS or phosphorus export from the project to the resource identified.

A. Calculations . This off-set must be calculated as provided in this subsection.

- (1) TSS off-set. If the project is required to meet the 80% TSS standard or sliding scale TSS standard, an off-set credit may be allowed. The credit will be based on the ratio of eliminated or reduced off-site impervious area to new on-site impervious area, and applied at a rate of two acres of reduced or eliminated off-site impervious area to every acre of new impervious area created. The following formulas are used to calculate the new (reduced) required % TSS removal. If the applicant can demonstrate, based on type of impervious area and intensity of use, that the level of stormwater pollutant export from the off-site impervious area is, on a per acre basis, equivalent to or greater than that expected from the proposed new impervious area, the 0.5 in the first formula may be replaced with 1.0, (changing the credit rate to 1 to 1).

Offset credit = $1 - [(0.5 \times \text{off-site impervious acres} \times (1 - \text{offset BMP TSS removal efficiency})) \div \text{New impervious acres}]$

New required % TSS removal = $[\text{Offset credit} \times (\text{Old required \% TSS removal} - 40\%)] + 40\%$.

The required % TSS removal may not be reduced below 40%.

- (2) **Phosphorus off-set.** If the project is required to meet the phosphorus standard, an off-set credit may be allowed. For every two pounds of estimated off-site phosphorus export that is eliminated or reduced, estimated on-site phosphorus export may be reduced by one pound, provided the elimination or reduction of off-site existing sources does not require maintenance. If the applicant can demonstrate, based on type of impervious area and intensity of use, that the level of phosphorus export from the eliminated or reduced off-site area is equivalent to or greater than that expected from the proposed new impervious area, the credit may be allowed at a ratio of 1 to 1.

NOTE: For guidance in determining phosphorus export see "Phosphorus Control in Lake Watersheds", Maine Department of Environmental Protection (1992).

B. Location. The source eliminated or reduced must be located so as to off-set the impact of the TSS or phosphorus export from the project to the resource affected by the project. In general, this requires that the source eliminated or reduced be located in the same watershed or region as the resource protected by the applicable stormwater quality standard. More than one source may be reduced or eliminated.

- (1) If the project is located in the watershed of a lake, the source that is eliminated or reduced must be located in the watershed of that lake.
- (2) If the project will discharge directly into a coastal wetland, or to a stream that does not appear or is not named on a USGS topographic map and flows directly into a coastal wetland, the source that is eliminated or reduced must be located in the watershed of the coastal wetland.
- (3) If the project will discharge directly to a stream that is named on a USGS topographic map, the source eliminated or reduced must be in the watershed of that stream.
- (4) If the project will discharge to a stream that does not appear or is not named on a USGS topographic map, the source eliminated or reduced must be in the watershed of the first named stream to which the stream flows.

C. Maintenance and transfer. Areas revegetated in order to off-set the stormwater quality impacts of new development must be maintained as provided in the permit, and any transfer of these areas must be made subject to deed restrictions that require such maintenance and are enforceable by the department.

5-A. Compensation -- Streams. Text not yet drafted. May be separate section or combined with Section 5. Compensation and off-site remediation.

Notes:

Required compensation fee or off site remediation credit for new, regulated development in “urban nps” impaired stream watersheds:

Type of surface w/ or w/out required treatment	<u>Required compensation fee or off site credit</u>	
	<u>Compensation fee</u>	<u>Off-Site Credit</u>
<i>Non-roof impervious area</i>	\$5,000.00/acre	0.5 credits/acre
<i>Roof or non-impervious developed area</i>	\$2,000.00/acre	0.2 credits/acre

Credits Earned for Off-Site Remediation Activities in “urban nps” impaired stream watersheds:

Remediation Activity	Source Type	Credit Earned
<i>Retrofit w/ Low Treatment Level BMPs</i>	<i>Road or High Use Parking</i>	<i>0.5 credits/acre treated</i>
	<i>Low Use Parking</i>	<i>0.3 credits/acre treated</i>
	<i>Roof, other Imp. or Lawn</i>	<i>0.2 credits/acre treated</i>
<i>Retrofit w/ Medium Treatment Level BMPs</i>	<i>Road or High Use Parking</i>	<i>1.0 credits/acre treated</i>
	<i>Low Use Parking</i>	<i>0.6 credits/acre treated</i>
	<i>Roof, other Imp. or Lawn</i>	<i>0.4 credits/acre treated</i>
<i>Retrofit w/ High Treatment Level BMPs</i>	<i>Road or High Use Parking</i>	<i>1.5 credits/acre treated</i>
	<i>Low Use Parking</i>	<i>0.9 credits/acre treated</i>
	<i>Roof, other Imp. or Lawn</i>	<i>0.6 credits/acre treated</i>
<i>Eliminate impervious source area, replace with lawn</i>	<i>Road or High Use Parking</i>	<i>1.0 credits/acre treated</i>
	<i>Low Use Parking</i>	<i>0.5 credits/acre treated</i>
<i>Eliminate impervious source area, replace with forest</i>	<i>Road or High Use Parking</i>	<i>2.0 credits/acre treated</i>
	<i>Low Use Parking</i>	<i>1.0 credits/acre treated</i>
<i>Retrofit 12 hour Extended Detention</i>	<i>Impervious areas only</i>	<i>0.5 credits/acre treated</i>
<i>Restore Riparian Buffer (minimum 30 foot depth)</i>		<i>1.0 credit per 100 feet of stream bank restored ?</i>

6. Submissions. 12/30/03 The application must include evidence that affirmatively demonstrates that the standards will be met, including information such as described in this section, when appropriate. Designs required pursuant to this section must be prepared under the supervision of, and signed and sealed by, a Registered Professional Engineer in the State of Maine, who by education, training, or experience is knowledgeable in stormwater management, with the following exception. If a project

includes less than 3 acres of impervious area, then ditches, swales, and other open stormwater channels that drain no more than one acre of land, and level spreaders that receive drainage from no more than one acre of land, must be designed by a Registered Professional Engineer in the State of Maine who by education, training, or experience is knowledgeable in stormwater management, or by a professional who is registered, licensed, or certified in a related land-use field, and by education, training, or experience is knowledgeable in stormwater management, and has received specific training in the design of ditches, grassed swales, and level spreaders at a department-sponsored stormwater management workshop.

A-1. Basic standards. *Yet to be developed.*

A. Stormwater quantity

- (1) Narrative. A narrative describing how the site is oriented within the watershed, identifying on-site and downstream ponds, lakes, and mapped wetland areas, and addressing the effects of the site runoff on the watershed hydrograph and nearby properties. Identify areas, buildings, and facilities that historically flood or which may be affected by the site runoff. State the total amount of impervious area, disturbed area, and developed area created by the project's development. Discuss the assumptions used in determining runoff curve numbers, time of concentration, and travel time calculations for each drainage sub-area.
- (2) Plan
 - (a) Pre-construction drainage ~~study~~ plans. ~~Sshowing~~ existing contours, and all topographic features including but not limited to: buildings and other facilities, natural and man-made drainageways, ~~streams, channels,~~ culverts, cover type, boundaries, elevation bench marks and datum, catch basins, roads, drainage easements, hydrologic flow lines, ~~hydrologic soil groups,~~ and subwatershed boundaries (on and off site). If the project must meet the flooding standard, then also show hydrologic flow lines and hydrologic soil group boundaries on the plan and identify each subcatchment, reach, and pond consistent with the runoff model.
 - (b) Post-construction or phased drainage ~~study~~ plans. ~~Sshowing~~ final or phased contours, all relevant existing contours, and all proposed topographic features including but not limited to: buildings and other facilities, natural and man-made drainageways, streams, channels, culverts, catch basins, stormwater management ponds and detention areas, stormwater management buffers, roads, drainage easements, cover type, elevation bench marks and datum, ~~hydrologic flow lines, hydrologic soil groups,~~ and final or phased subwatershed boundaries (on and off site). If the project must meet the flooding standard or channel protection standard, then also show hydrologic flow lines and hydrologic soil group boundaries on the plan and identify each subcatchment, reach, and pond consistent with the runoff model.
- (3) Calculations. The stormwater quantity calculations must be in accordance with acceptable engineering practice.

Acceptable stormwater methodologies and models include but are not limited to "TR-20 - Computer Program for Project Formulation - Hydrology," Second Edition, U.S. Department of Agriculture, Soil Conservation Service (May 1983); "TR-55 - Urban Hydrology for Small Watersheds," Second Edition, U.S. Department of Agriculture, Soil Conservation Service (June 1986); TR-55 Microcomputer Program, Version 2.0, (January 15, 1990); and "HEC-1 Flood Hydrology Package", U.S. Army Corps of Engineers. Any methodology other than those listed must have prior approval from the department. Use of the 25-year, 24-hour storm as a design standard in this chapter is not intended to prohibit appropriate use of the rational method.

NOTE: For guidance, see "Stormwater Management for Maine: Best Management Practices" (1995).

- (a) Pre-construction peak-flow analyses--If the project must meet the flooding standard, then provide p~~Pre-construction~~ stormwater calculations for 2-, 10-, and 25-year, 24-hour storms. Including runoff curve numbers computations; and time of concentration calculations; and travel times for each subwatershed sub-area. Provide reach descriptions and reach routing analysis for each open-channel or pipe system. Provide pond descriptions and storage routing calculations for any existing detention and culvert backwater areas.
- (b) Post-construction peak-flow analyses--Provide p~~Post-construction, site operation, or phased stormwater calculations~~ analyses for 2-, 10-, and 25-year, 24-hour storms. Including runoff curve numbers computations; time of concentration calculations; and travel times for each subwatershed sub-area. Provide reach descriptions and reach routing analysis for each open-channel or pipe system. Provide pond descriptions and storage routing calculations for any stormwater management ponds, detention areas, and culvert backwater areas.
- (a) ~~Calculations of the 100-year, 24-hour storm impact on downstream structure(s) and the receiving water body, if in or discharging into a designated 100-year flood area.~~
- (c) Sizing analysis for channel protection detention--If the project will use channel protection detention, then provide a post-development analyses for the 1-year, 24-hour storm. Include runoff curve number computations and time-of-concentration calculations for each subwatershed draining to the extended detention structure. Provide reach descriptions and reach routing analyses for each open-channel or piped system bringing runoff to the structure. Provide basin descriptions and storage routing calculations showing that the twelve-hour detention time is met without activating any upstream bypass or overflow spillway.
- (d) (Sizing calculations for channel protection filters and infiltration structures. If the project will use a channel protection filter or infiltration structure, then provide the calculations used to determine the water volume needed to be filtered or infiltrated based on the post-development site's impervious and developed areas. Provide calculations demonstrating

that the filter and infiltration structure has sufficient capacity to contain the calculated water volume without activating any upstream by-pass or overflow spillway.

(e) Sizing for channel protection buffers. [under development]

- (4) Details, designs, and specifications. ~~Detention basins~~ Details, designs, and specifications. Submit design details for each stormwater quantity control structure that will be built or installed on the site. Designs and details must be supported by appropriate engineering calculations and construction specifications for each structure or structural component contributing to the structure's stability and hydraulic function.

~~(a) Basin storage values and sizing calculations including stage storage curves and outlet velocities for each detention basin.~~

(a) Stormwater management ponds and basins--Provide plans showing a plan view of the pond's layout, cross-sectional views of the pond's embankment(s), and details of principal outlet structure, emergency spillway, outfall(s), seepage controls, trash racks, and other details necessary for the pond's proper construction. Identify peak storage elevations within the pond for the 2-year, 10-year, and 25-year storms if the pond will be used for flooding (peak flow) protection. Identify the peak storage elevation within the pond for the 1-year storm if it will be used for channel protection detention.

~~(b) Outlet and spillway detail and sizing calculations for each detention basin.~~

(b) Channel protection filters--[under development]

~~(c) Basin cross sections that show and identify the water level elevations for the 2 , 10 , and 25 year, 24 hour storms.~~

(c) Channel protection infiltration areas. [under development]

~~(d) Detail sheet showing plan and cross sectional views of the detention basin(s), outlet structure(s), emergency overflow structure(s), associated riprapped areas, and other details necessary for construction.~~

(d) Channel protection buffers. [under development]

B. Stormwater quality *Not yet updated*

- (1) Narrative. A narrative describing how the site is oriented within the watershed, identifying downstream ponds, lakes, and mapped wetland areas, and addressing the effects of the site runoff. Identify and discuss stormwater treatment methods to be used on the site.
- (2) Plan. A plan showing final or phased contours, all relevant existing contours, and all proposed topographic features including but not limited to: buildings and other facilities, natural and man

made drainageways, streams, channels, culverts, catch basins, roads, drainage easements, stormwater quality treatment facilities, points of concern, and associated drainage area(s).

The stormwater quality plan must include detail drawings of the stormwater best management practices and specifically show the location of both structural and nonstructural best management practices.

- (3) Calculations. Calculations must include assumptions and associated calculations demonstrating that the stormwater treatment will be to at least the level required by Section 4.

7. Permit by rule. *Deleted and replaced*

7. Permit by rule 12/30/03

A. When permit by rule is available

- (1) Basic standards. An applicant may apply for Permit by Rule when:
- (3) Quantity standards are not required because the project includes less than one acre of impervious area and less than 5 acres of developed area; and
- (4) Basic standards (Section 2-B) are the only quality standards required.

Permit by rule is not available if review is required pursuant to the the Site Location of Development Law.

- (2) Transfer. An applicant may apply for a the transfer of a Stormwater Management Law project pursuant to Section 9(A)(4), or for approval of the project if the project.
- (3) Modification. An applicant may apply for a modification of an individual Stormwater Management Law permit. If a permit by rule needs to be modified, the applicant must file a revised permit by rule.

B. Standards. The project applying for approval under permit by rule must meet basic standards. See Section 2-B. An applicant for a transfer must meet the requirements of the permit. An applicant for a modification must meet the requirement sof this chapter.

C. Procedure. The application must be on a form provided by the department. The application is deemed approved 14 calendar days after the department receives the application form, unless the department approves or denies the application, or notifies the applicant that the applicant is ineligible for permit by rule, or requires additional information or further review, prior to that date. If the department does not otherwise notify the applicant within the 14-day period, the application is deemed approved by the department.

- 8. Municipal program--exemption.** 12/30/03 The department may allow a municipality or a quasi-municipal organization, such as a watershed management district, to substitute a management system

for stormwater for the stormwater permit requirement pursuant to 38 M.R.S.A. § 420-D(2). The management system may apply to an entire watershed, or a subwatershed, of a receiving water, and may include multiple watersheds within the jurisdiction of the municipality or quasi-municipal organization. A project located within the area served by a management system approved by the commissioner is exempt from the stormwater permit requirements contained in this rule.

The municipality or quasi-municipality may elect to have the substitution take effect at the time the system is approved by the department, or at the time the system is completed as provided in the implementation schedule provided by the department.

A. Program approval criteria. The municipality or quasi-municipal organization must demonstrate that the following criteria are met.

- (1) Relationship to water quality. The municipality or quasi-municipal organization must have a stormwater treatment plan that, upon implementation, will result in the collective treatment of stormwater from new and existing sources within the watershed and will result in water quality in the receiving water that is as good, or better, than would be the case if the department required stormwater permits for individual projects, as determined by the department.
- (2) Funding and implementation. The plan must include funding provisions and an implementation schedule that provides that the treatment system for new and existing sources will be in place and functioning within five years unless a longer time period, up to 10 years, is approved by the department.

NOTE: The municipality or quasi-municipal organization may institute fees or secure other funding sources prior to the operation of the plan.

- (3) Annual reporting. The plan must also include a provision for annual reporting on progress toward implementation and a listing of the new development within the jurisdiction of the management system.

B. Reinstatement of permit requirement. The department may reinstate the stormwater permit requirement if it finds that the implementation schedule is not being met, or that the management system is not achieving the plan's objectives.

8-A. Municipal program--plans. The department may review and approve a stormwater plan submitted by a municipality or a quasi-municipal organization, such as a watershed management district. The stormwater plan may apply to an entire watershed, or a subwatershed, of a receiving water, and may include multiple watersheds within the jurisdiction of the municipality or quasi-municipal organization.

Section not yet drafted. Possibility of relating some type of plan to the availability of off-site credit in certain watersheds and/or further adjustment in standards on new development, still being discussed.

9. Conditions of approval. *12/30/03 Not yet updated.* The following conditions of approval apply to a stormwater permit (individual or permit by rule) required pursuant to 38 M.R.S.A. § 420-D.

A. Standard conditions of approval. Unless otherwise specifically stated in the approval, a department approval is subject to the following standard conditions.

- (1) Approval of variations from plans. The granting of this approval is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted and affirmed to by the applicant. Any variation from these plans, proposals, and supporting documents must be reviewed and approved by the department prior to implementation. Any variation undertaken without approval of the department is in violation of 38 M.R.S.A. § 420-D(8) and is subject to penalties under 38 M.R.S.A. § 349.
- (2) Compliance with all terms and conditions of approval. The applicant shall submit all reports and information requested by the department demonstrating that the applicant has complied or will comply with all terms and conditions of this approval. All preconstruction terms and conditions must be met before construction begins.
- (3) Advertising. Advertising relating to matters included in this application may not refer to this approval unless it notes that the approval has been granted **WITH CONDITIONS**, and indicates where copies of those conditions may be obtained.
- (4) Transfer of project. Unless otherwise provided in this approval, the applicant may not sell, lease, assign, or otherwise transfer the project or any portion thereof without written approval by the department where the purpose or consequence of the transfer is to transfer any of the obligations of the developer as incorporated in this approval. Such approval may only be granted if the applicant or transferee demonstrates to the department that the transferee agrees to comply with conditions of this approval and the proposals and plans contained in the application and supporting documents submitted by the applicant. Approval of a transfer of the permit must be applied for no later than two weeks after any transfer of property subject to the license.
- (5) Initiation of project within two years. If the construction or operation of the activity is not begun within two years, this approval shall lapse and the applicant shall reapply to the department for a new approval. The applicant may not begin construction or operation of the project until a new approval is granted. A reapplication for approval may include information submitted in the initial application by reference.
- (6) Reexamination after five years. If the project is not completed within five years from the date of the granting of approval, the department may reexamine its approval and impose additional terms or conditions or prescribe other necessary corrective action to respond to significant changes in circumstances or requirements which may have occurred during the five-year period.
- (7) Certification. Contracts must specify that "all work is to comply with the conditions of the Stormwater Permit." Work done by a contractor or subcontractor pursuant to this approval

may not begin before the contractor and any subcontractors have been shown a copy of this approval with the conditions by the developer, and the owner and each contractor and subcontractor has certified, on a form provided by the department, that the approval and conditions have been received and read, and that the work will be carried out in accordance with the approval and conditions. Completed certification forms must be forwarded to the department.

(8) Maintenance. The components of the stormwater management system must be adequately maintained to ensure reasonable operation of the system.

B. Special conditions. The department may, as a term or condition of approval, establish any reasonable requirement to ensure that the proposed project will proceed in accordance with the Stormwater Management Law and rules. However, terms and conditions must address themselves to specifying particular means of satisfying minor or easily corrected problems relating to compliance with the Stormwater Management Law, and may not substitute for or reduce the burden of proof of the developer to affirmatively demonstrate to the department that each of the standards of the Stormwater Management Law has been met.

10. Recording of order. The department shall record each order approving or modifying a permit pursuant to Chapters 500 and 502 in the appropriate registry of deeds.

11. Severability. Should any provision of these rules be declared invalid or ineffective by court decision, the decision shall not invalidate any other provision of these rules.

12. Transition. *Not yet updated* Laws 1995, c. 704, § B-4 provides that impervious areas and disturbed areas created prior to July 1, 1997 are not counted when determining the amount of such areas on a parcel, although such areas may be reviewed to the extent necessary to ensure that controls intended to address new areas function adequately. New construction on an impervious area created prior to July 1, 1997 is not counted when determining the amount of impervious area on a parcel. An area is considered "created" for purposes of this provision when local approval has been received, and construction has begun.

13. Permit shield. *12/30/03* Compliance with a permit issued in accordance with this chapter is considered compliance with Section 4 of this chapter. If a stormwater best management practice is approved by the department and, although adequately and appropriately constructed and maintained by the permittee, as determined by the department, it fails to meet a water quality standard provided in Section 4, the permittee is not in violation for failing to comply with the standard.

This section does not apply if an experimental measure is approved. See Section 14.

NOTE: This section does not apply to approvals pursuant to 38 M.R.S.A. § 413, the Waste Discharge Law. For the provision applicable to the Waste Discharge Law, see 38 M.R.S.A. 414(8) "Effect of license".

Nothing in this section alters or affects the liability of the permittee if a violation has occurred prior to permit issuance.

14. Experimental measure. *12/30/03* The department may, on a case-by-case- basis, approve an experimental best management practice when requested by an applicant. However, in this case, the "permit shield" provision in Section 13 will not apply, and the department may require the applicant to collect and submit sufficient information on the performance on the best management practice to allow evaluation. If the best management practice does not perform at least as well as would have been expected from otherwise available best management practices, the department may require the permittee to replace or otherwise redesign the system.

The department may only approve an experimental practice on a site where it would be possible to replace or redesign the experimental system if necessary.